Hopewell Precision Site

New York

EPA ID#: NYD066813064

EPA REGION 2

Congressional District(s): 09

Dutchess

NPL LISTING HISTORY
Proposed Date: 9/23/2004
Final Date: 4/27/2005

Site Description

The Hopewell Precision Area Groundwater Contamination Site is located in Hopewell Junction in the Town of East Fishkill, Dutchess County, New York. Hopewell Precision, Inc. (and its predecessor, Hopewell Fabricators, Inc.) have operated at either 15 or 19 Ryan Drive since the early 1970's manufacturing sheet metal parts and assemblies. Various painting and degreasing processes used at these locations generated wastes that were reportedly disposed of directly on the ground, resulting in a groundwater contamination plume which now extends about 1.5 miles in a southwesterly direction from 15 and 19 Ryan Drive. The area surrounding the Site is mostly residential, all of which is served by private drinking water wells and septic systems.

Site Responsibility: This site has been addressed through Federal actions.

Threat and Contaminants

Groundwater is contaminated with volatile organic compounds (VOCs) such as trichloroethylene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA). Since March 1980, TCE and 1,1,1-TCA have been detected in a drinking water well and several monitoring wells located on the Hopewell Precision property. Both VOCs have also been detected in nearby private drinking water wells. Since February 2003, EPA Region 2 has collected drinking water samples from wells in the vicinity of Hopewell Precision Area Contamination site. TCE and 1,1,1-TCA were both detected in numerous private well samples, at individual concentrations up to 250 micrograms per liter (ug/L). In addition, 1,1-dichloroethylene (1,1-DCE), a direct breakdown product of TCE, was detected in two samples. Several instances of TCE detection exceeded its Maximum Contaminant Level (MCL) of 5 ug/L. MCLs are the maximum permissible levels of a contaminant that may be present in water used for drinking purposes.

Contamination from the site is also believed to have an impact on ponds located downgradient of 15 and 19 Ryan Drive. In April 2003, EPA collected water and sediment samples from small ponds located about 300 feet south-southwest (i.e., downgradient) of 15 and 19 Ryan Drive. TCE was detected at concentrations of 4 ug/L and 3.4 ug/L in the water samples and 88 micrograms per kilogram (ug/kg) in a sediment sample. EPA collected additional samples from two ponds located approximately 900 and 4,500 feet southwest of Hopewell Precision in May 2003. TCE was detected at an estimated concentration of 3.6 ug/kg in a sediment sample from the closer pond, but was not detected in samples collected from the farther pond.

Cleanup Approach

Superfund Removal Action: EPA has taken early action to address exposure to contaminated drinking water and indoor air at the Hopewell Precision Area Groundwater Contamination site. In February 2003, EPA collected samples from 75 residential wells in the vicinity of the Site and found that five of these wells were contaminated with TCE. In response to this finding, EPA initiated a removal action under the federal Superfund program in March 2003.

Sampling of Private Wells and Installation of Carbon Filtration Systems - Since March 2003, 450 residential drinking water wells located in the vicinity of the Site have been sampled. Sampling of these wells revealed elevated levels of TCE and 1,1,1-TCA. Point-of-entry treatment (POET) systems have been installed in 41 homes where TCE was found in well water at concentrations in excess of the 5 ug/l MCL for TCE. The POET systems which EPA installed are highly effective in removing TCE and other VOCs from drinking water. The New York State Department of Environmental Conservation (NYSDEC) installed similar filtration systems for fourteen 1,1,1-TCA-contaminated wells found to exceed the state MCL of 5 ug/l.

Air Sampling and Installation of Sub-Slab Ventilation Systems (SVS) - Beginning in April 2003, EPA collected air samples

from a number of residences in the vicinity of the Site to determine if TCE was present in indoor air. EPA collected air samples from underneath the homes (referred to as sub-slab samples) as well as from basements and first floors. EPA has conducted sub-slab air sampling at 207 homes: of these, 66 homes were found to have detectable concentrations of TCE. The vapor intrusion investigation, which involved the collection of both sub-slab and indoor air samples, enabled EPA to make the determination that vapors from the contaminated groundwater were finding their way into some of the homes. EPA evaluated these data in consultation with the NYSDEC, the New York State Department of Health and the federal Agency for Toxic Substances and Disease Registry, and determined that there were residences requiring mitigation due to elevated concentrations of TCE in indoor air. To date, EPA has installed sub-slab ventilation systems in 53 residences. These ventilation systems, which are very similar to equipment used to reduce the level of radon in homes, have been successful in addressing vapor intrusion problems; however, a number of months may be required to reduce the vapors to acceptable levels.

Superfund Remedial Action: On April 27, 2005, EPA placed the Hopewell Precision on the National Priorities List (NPL). The NPL is a published list of hazardous waste sites in the country that are eligible for extensive, long-term cleanup action under the Superfund program. In December 2005, EPA initiated a remedial investigation and feasibility study (RI/FS) as part of the long-term Site cleanup phase. The RI/FS evaluated the nature and extent of groundwater, soil, sediment, surface water, and vapor contamination at the Site, and to help EPA determine the appropriate cleanup alternatives for the identified contamination prior to selection of a comprehensive cleanup plan for the Site. EPA completed all RI field activities during the Summer of 2007 and publicly released the RI/FS Reports in July 2009. In addition, EPA also conducted a Focused Feasibility Study (FFS) to evaluate alternatives for alternate water supplies in the area of the identified groundwater plume; this FFS was publicly released in July 2008.

EPA divides Superfund sites into remedial phases or Operable Units (OUs) to prioritize and accelerate selection of a remedy, when warranted. EPA has divided the Hopewell Precision site into two OUs. OU 1 addresses remediation and restoration of the contaminated groundwater to drinking water standards by using naturally-occurring microorganisms that break contaminants down, making them harmless. OU 2 includes provision of an alternate water supply to the area with private drinking water wells that have been or have the potential to be affected by the groundwater plume from the Hopewell Precision facility. The OU 2 Record of Decision (ROD) was completed in September 2008 and the OU 1 ROD was completed in September 2009.

The OU 2 Remedial Design activities began in July 2009 and is expected to be completed during the Spring of 2012. As part of the OU 2 Remedial Design activities, EPA held a public information session in December 2009 on the Source Water Evaluation Report that evaluated the three potential sources of water selected in the OU 2 ROD for further study. Specifically, the Source Water Evaluation Report evaluated the daily water usage demand for the Hopewell hook-up area, as well as capacity, current water demand and necessary improvements needed to meet the water demands of the Hopewell hook-up area for each of the three potential sources of water. Due to wide public interest and a request from the Hopewell community, EPA also provided a 30-day comment period on the Source Water Evaluation Report before the Agency makes a final decision on the water source. The 30-day comment period began on December 14, 2009, the date of the public information session, and ended on January 12, 2010. Protracted negotiations for acquisition between the Town of East Fishkill and the owners of a privately-owned water source, which is preferred by the community at large, have significantly delayed completion of the design of the alternate water supply system. However, in collaboration with the Town of East Fishkill, EPA is presently reviewing public comments to date to decide on the three potential sources of water as well as other alternative sources of water, and will need to subsequently conduct a pumping test at the selected source water wellfield to confirm that the selected aquifer could support the additional capacity needed for the Hopewell hook-up area. Upon completion of the OU 2 Remedial Design phase, the OU 2 Remedial Action phase will commence.

The OU 1 Remedial Design began during the Spring of 2010 and is expected to be completed by December 2012. Upon completion of the OU 1 Remedial Design phase, the OU 1 Remedial Action phase will commence.

Cleanup Progress

As part of the Superfund Removal Action that was initiated in March 2003, EPA continues to sample the 41 carbon filtration systems on a quarterly basis to ensure that they are working properly. Furthermore, the NYSDEC will continue to sample their 14 carbon filtration systems on a quarterly basis. EPA will also continue to sample impacted and potentially impacted private wells, accompanied by indoor air sampling as deemed appropriate, in order to evaluate how the plume of contaminated groundwater is moving and to determine whether additional homes may be impacted in the future. Should additional impacted residences be identified, EPA will install POET systems and/or SVS in those residences.

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Site Repositories

Town of East Fishkill Community Library 348 Route 376 Hopewell Junction, New York 12533 (845) 221-9943

For additional information, please contact: Community Involvement Coordinator, Cecilia Echols, at 1-800-346-5009, or Remedial Project Manager, Lorenzo Thantu, at (212) 637-4240.